CLAIMS

1. Boosted braking device, for a motor vehicle, comprising: a master cylinder (2) controlling the pressure in at least one brake circuit; a primary piston (3) mounted to slide in the master cylinder to create therein a variation in pressure, this primary piston being subjected to an actuating force made up of an input force exerted by a manual-control member (4) and of a boost force exerted by a booster (6) which is coupled to the manual-control member; an emergency assist valve (VA) comprising a reaction piston (17a) which slides in a sealed manner in a bore (18) of the primary piston, the front part (18a) of this bore communicating with the interior volume (5) of the master cylinder, a rapid piston (17b) of cross section smaller than that of the reaction piston sliding in a sealed manner in a bore (18b) of corresponding diameter of the primary piston, and a ratio control (T) actuated by a plunger distributor (10) itself driven by the manual-control member (4), the assembly being arranged in such a way that under emergency braking, the hydraulic reaction is exerted only on the small cross section of the rapid piston, characterized in that the reaction piston (17a) and the rapid piston (17b) form one and the same stepped piston (17) having a part (17a) of large cross section and a part (17b) of small cross section, the large-section part (17a) determining, with the corresponding bore (18) of the primary piston, an annular chamber (27), the volume of which varies according to the displacement of the stepped piston (17) relative to the primary piston (3), and that separation/communication means (28, 29, 30), controlled by the displacement of the stepped piston (17) are designed so that the pressure of the liquid is exerted on the large cross section (17a) of the stepped piston when the latter occupies its position of rest or is to the rear of this position, and on

only the small cross section (17b) when the stepped piston is displaced forward relative to the primary piston (3) under emergency braking.

2. Braking device according to Claim 1, characterized in that the separation/communication means comprise a means of separation (30) between large and small cross section, connected to the primary piston (3).

3. Braking device according to Claim 1, characterized in that the separation/communication means comprise a blind bore (28) provided in the stepped piston and open forward, this blind bore communicating, toward its interior end, via at least one hole (29), with the periphery of the small-section piston (17b), while a sealing means (30), connected to the primary piston (3), is provided in the annular chamber (27), around the small-section piston (17b), to collaborate with the hole(s) (29) in the small-section piston.

4. Braking device according to Claim 2, characterized in that the separation/communication means comprise a blind bore (28) provided in the stepped piston and open forward, this blind bore communicating, toward its interior end, via at least one hole (29), with the periphery of the small-section piston (17b), while a sealing means (30), connected to the primary piston (3), is provided in the annular chamber (27), around the small-section piston (17b), to collaborate with the hole(s) (29) in the small-section piston.

5. Braking device according to Claim 3, characterized in that the sealing means consists of a lip seal (30) of lip (32).

6. Braking device according to Claim 4, characterized in that the sealing means consists of a lip seal (30) of lip (32).

7. Braking device according to Claim 1, characterized in that the large-section part (17a) of the stepped piston lies toward the front and the small-section part (17b) lies toward the rear.

8. Braking device according to Claim 7, characterized in that the small-section part (17b) comprises a

shoulder (21) against which there may bear axially a washer (24) acting as a thrust washer for a compression spring (25), the other end of which bears against a stop piece (26) anchored in a housing (22) of the primary piston.

9. Braking device according to claim 1, characterized in that the small-section piston (17b) is extended toward the plunger distributor (10) by a rod (T) of smaller diameter.

10. Braking device according to Claim 9, characterized in that a gap exists at rest between the rear end of the rod (T) and the plunger distributor (10).

11. Braking device according to claim 1, characterized in that a compression spring (19) bears against the large-section part (17a) of the stepped piston (17) and against a split ring (20) anchored in a groove of the bore (18) of the primary piston (3).